PROJECT REPORT

Institutionalization
of Quality Assurance

Acknowledgments

Contents

Institutionalization of Quality Assurance

1. Introduction

1.1 The Context for Institutionalizing Quality Assurance

The use of quality assurance methods to improve the quality of health care in the developing world has grown substantially over the last ten years. Quality assurance (QA) can be defined as all activities that contribute to defining, designing, assessing, monitoring, and improving the quality of health care, such as developing and communicating standards, measuring the level of compliance with standards, and applying quality management methods to continually improve quality. These activities can be performed as part of the accreditation of facilities, supervision of health workers, or other efforts to improve the performance of health workers and the quality of health services.

At this stage, the critical question is not so much a technical one, how to "do" QA activities, but rather, how to establish and maintain QA as an integral, sustainable part of a health system or organization, woven into the fabric of daily activities and routine.[1] This paper describes the essential elements for institutionalizing quality assurance within an organization or health system.

The implementation of quality assurance activities does not take place in a vacuum, nor should its institutionalization be viewed in isolation. Quality assurance efforts interact with the larger environment, which includes the health sector, as well as sectors that affect health. QA is influenced by and influences health sector reform initiatives, such as decentralization, financing reform, or re-engineering. Quality assurance, as described in this document, is not considered to be a vertical program, working independently. Hence, the paper will address the broader "enabling" environment necessary to sustain QA, and examine potential opportunities to capitalize upon factors or conditions within this broader environment that might facilitate the health sector's (or organization's) ability to produce quality health services.

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1 The term "organization" is used here to refer to a range of structures into which QA could be institutionalized: individual healthcare facilities, health networks, intermediate health system structures (e.g., district or regional health units), or national level health systems or Ministries of Health (MOH).

1.2 Fundamental Principles of Quality Assurance for Application in Developing Countries

Much of the approach to quality assurance and its institutionalization presented in this paper is built on the teachings and principles of established leaders in the field of quality, notably W. Edwards Deming, Joseph M. Juran, Avedis Donabedian, and Donald Berwick.[2] The Quality Assurance Project (QAP) has adapted the methods, approaches, and strategies of these leaders for use in developing countries.

Within a relatively short time, many developing countries have progressed from providing rudimentary health services for a limited set of people, to more extensive coverage with a broad package of services. In the face of such rapid progress, it is not surprising that several traditional components of QA were commonly overlooked (e.g., setting standards, monitoring for compliance, or incorporating new technologies into professional training).

Thus, QAP's approach to quality assurance for developing countries incorporates more traditional QA methodology (e.g., accreditation, regulation, and standards) with newer methods, such as continual quality improvement.[3] During the last eight years, QAP's work experiences in over 25 developing countries have indicated that despite variations among QA programs in different countries, a common set of essential elements is needed for QA to become institutionalized in an organization or health system.

The QAP approach to quality assurance is founded on the importance of client perspectives and needs, systems and processes, the use of data for decision making, and team work to solve problems. These four related principles are described below:

- [Client perspective and needs] QA recognizes that health services exist to meet the health needs of clients.[4] This principle emphasizes the importance of knowing who the clients are, while understanding and trying to meet their needs and expectations. Clients include those within the organization (often referred to as "internal" clients)—who have needs and expectations from other colleagues to be able to do their work well—as well as external clients (the target population and other stakeholders).

- [Systems[5] and processes[6]] QA recognizes that unclear, redundant, or incomplete systems or processes may be a source of problems in the delivery of quality care. Instead of blaming the people working in these systems for poor performance, QA

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2   Deming, W.E. 1982. *Quality, Productivity, and Competitive Position*. MIT Center for Advanced Engineering Study: Cambridge, MA. Juran, J.M. 1988. *Juran's Quality Control Handbook* (Fourth Edition). USA: McGraw-Hill, Inc. Donabedian, A. 1980. *Explorations in Quality Assessment and Monitoring*, Volumes I, II, and III. Ann Arbor, MI: Health Administration Press. Berwick, D. 1995. *Improving Health Care Quality*. Boston: Institute for Healthcare Improvement.

3   Nicholas, D., L. Winter, X. Crespin, and A. M. Boukar. 1997. Results of CQI in Africa: the Niger experience. In *The Effectiveness of CQI in Health Care: Stories from a Global Perspective*. ASQC Health Care Series. Milwaukee: ASQC Quality Press Publications. .

4   The term "client" refers to the health services' target population, whether it is for curative, health education and promotion, rehabilitation, or prevention services.

5   A system is the arrangement of organizations, people, materials, and procedures associated with a particular function or outcome. A system is made up of inputs, processes, and outputs (outcomes, effects, and impact).

6   A process is a series of actions that transforms inputs into outputs.

activities involve people in the prevention, detection, and resolution of problems within processes or systems, in order to improve the quality of care.

- [Data-based decisions] QA emphasizes the need to improve processes by understanding how they function. This principle promotes decision-making based on accurate and timely data, rather than on assumptions. Understanding and using data also means understanding variation: whether variation is a normal part of the process or whether it indicates a real change.

- [Teamwork] QA focuses on participation and teamwork to solve problems and implement quality solutions, recognizing that the impact of QA activities is most powerful when the participation, experience, and knowledge of major participants and stakeholders is included.

These principles serve as the foundation for QA, and reflect that QA is not just a set of activities, but also a fundamental set of beliefs and values that become a "way of doing things" in an organization. These principles are in accordance with those espoused in the quality management literature.[7]

In addition to technical QA activities to define, monitor, and improve quality, other support functions are needed to sustain QA in any organization. Also necessary is an implementation structure, as well as an enabling environment that supports QA through its policies, institutional core values, committed leadership, and allocation of necessary resources. When such an environment and structure exist within an organization, and QA activities are carried out with the appropriate support, certain changes occur in the organizational culture, leading to a "culture of quality." This culture is one in which staff view quality as a primary objective of their work and value it as a reward in itself, and where clients expect quality care among their rights as human beings, citizens, and payers of care. The existence of such a culture of quality is an indication that QA has become integrated into the "fabric" of the organization. It is truly "institutionalized" and will be sustained.

This paper is designed to assist stakeholders of the healthcare system who strive to attain and sustain quality care through the institutionalization of QA. Based on the QAP experience of institutionalizing quality assurance in developing countries, the first part of the document provides a definition of the institutionalization of QA and proposes a framework of **essential elements** or building blocks required for institutionalizing QA. The second part highlights QA experiences from five different countries, specifically examining the role or contribution of the essential elements in each country's progress toward the institutionalization of QA. While this document presents a framework for successful institutionalization of QA, a future paper will outline the process of institutionalizing QA—moving from initial steps to initiate QA to growth, expansion, replication, and ultimately sustained QA.

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7 The quality management literature often includes leadership as the fifth principle. In our model of institutionalization, we include leadership within the model.

2. Why are we trying to institutionalize QA?

2.1 Quality Care: The Goal of Institutionalized QA

Quality care is the ultimate goal of institutionalized QA activities. There are many different definitions for the term "quality" in the context of health care. The following is one commonly used: *"…proper performance according to standards of interventions that are known to be safe, that are affordable to the society in question, and that have the ability to produce an impact on mortality, morbidity, disability, and malnutrition."[8]*

The most comprehensive, yet perhaps the simplest definition of quality is that used by advocates of total quality management: "Doing the right thing, right, right away." The QAP describes eight dimensions of quality: technical competence, access to services, effectiveness, interpersonal relations, efficiency, continuity, safety, and amenities.[9]

While drug distribution, manpower planning and allocation, and technical and professional training systems contribute and are necessary for quality care, quality assurance is the lynchpin ensuring that systems and processes work effectively and in synchrony to achieve quality care.

Within this paper, the terms "quality care" and "quality of care" are used as synonyms.

2.2 Enhancing the Quality of Care through QA

Quality assurance is a core set of activities that contribute to defining, designing, assessing, monitoring, and improving the quality of healthcare. There is no "correct" sequence to implementation of these activities: appropriate selection and implementation of QA activities will depend on the capacity of the health delivery system and the presence of other

**Figure 1.
Core Activities of
Quality Assurance**
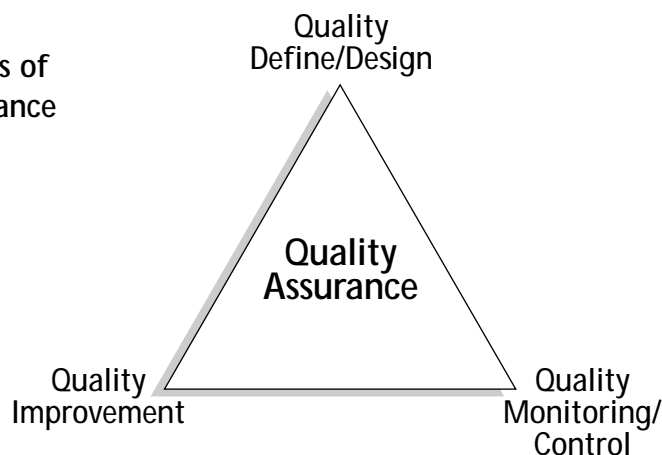
8   Roemer, M. I. and C. Montoya-Aguilar. 1988. Quality assessment and assurance in primary health care. WHO Offset Publication No. 105. Geneva: World Health Organization.

9   DiPrete Brown, L., L. M. Franco, N. Rafeh, and T. Hatzell. 1998. *Quality Assurance in Developing Countries,* Second Edition. Quality Assurance Methodology Refinement Series. Bethesda, MD: Quality Assurance Project.

essential elements in the QA framework. However, these QA activities are synergistic in nature, with the greatest impact on quality of care being achieved when all of these activities are carried out in a coordinated fashion.

Each angle of the triangle contains a core activity. A progression of related subactivities are listed along the contiguous arm in the smaller triangles following each description.

- **Defining quality:** clarifying what is needed to produce quality. Includes defining, setting, and updating clinical and administrative standards for health services (based on the best scientific evidence currently available), communicating standards, and design of accreditation, licensing, or certification standards. Stakeholder perception of quality (including client and community input) is an important contribution to defining quality.

- **Monitoring quality:** systematic identification of what level of quality the system is currently producing. Includes collecting and analyzing data that provides information about level of adherence to established guidelines and standards, problems encountered that limit adherence, and opportunities for quality improvement through audit, supervisory assessments, self-assessment, or other methods.

- **Improving quality:** systematically improving the quality of care by addressing the gaps between current practices and desired standards, through management decisions, rapid-cycle problem solving, team-based problem solving, process improvement, and quality redesign. Performance improvement activities also contribute to improving quality.

3. What is institutionalization in the context of QA?

Institutionalization is an ongoing process in which a set of activities, structures, and values becomes an integral and sustainable[10] part of an organization. Although the focus of this paper is on institutionalizing QA at higher levels of the public health system (regional or national), institutionalization is a process that can occur at any organizational level—the individual health facility, a health network, the health district, or at a national level. Furthermore, though the process of institutionalizing QA in a more dispersed health system, such as that found in the United States, would be more complicated, the essential elements discussed in this paper would still apply.

The QAP defines institutionalization in the context of QA as follows:

When QA activities are formally and functionally incorporated into the structure of a health system (or organization), consistently implemented, and supported by a culture of quality, as reflected in organizational values and policies that advocate quality care.

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10 The word "sustainable" here means that people know what needs to happen, they have the skills to make it happen, and they believe that it is important to happen over time. We are focusing less on the financial sustainability, which would translate as always having the resources necessary to carry out QA, since resource availability can vary for reasons other than poor institutionalization, such as natural disasters, global economic influences on the country's economy, and so on.

The QAP has found that merely having the capacity to carry out technical quality assurance activities (e.g., defining quality standards, monitoring quality, and quality improvement) does not ensure that QA is institutionalized within an organization. An environment that enables the initiation, growth, and continuity of QA activities must also incorporate supportive policies, appropriate core values, effective leadership, and adequate resource allocation which emphasizes the importance of quality and encourages people to practice QA activities. Resources and structures that support the performance of QA technical activities are also needed. These essential elements provide the "staying power" for QA; their presence or absence determines whether QA remains a set of isolated, limited activities or becomes institutionalized within the organization or health system.

4. The essential elements for institutionalizing QA

4.1 Overview of Essential Elements in the QAP Institutionalization Framework

The essential elements, fundamental to successful institutionalization of QA, described below, are derived from a combination of the organizational development literature and QAP experience implementing QA activities and building QA programs in developing countries. While recognizing that every health organization functions within a larger environment that influences the organization and its ability to implement QA, this framework of essential institutionalization elements focuses on those which operate within the organization's sphere of influence. They can be divided into three categories: I. Support Functions, II. Structure, and III. Internal Enabling Environment.

> **Figure 2. Essential Elements for Institutionalization**
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> **I. Support Functions**
>
> A. Capacity building
>
> B. Communications
>
> C. Rewarding quality
>
> **II. Structure**
>
> **III. Internal Enabling Environment**
>
> A. Policy
>
> B. Leadership
>
> C. Core Values
>
> D. Resources

I. Support Functions

In order to institutionalize QA, there needs to be formal, ongoing processes for developing and maintaining the staff's capacity to implement quality assurance activities, for disseminating QA information, and for rewarding quality.

A. Capacity building: to ensure that all staff possess the knowledge and skills to carry out QA activities. This function includes the development/implementation of a systematic process to assure appropriate QA training for all involved staff, as well as mechanisms to provide continuous support for QA activities to reinforce new skills with the assistance of a coach and/or supervisor.

B. Communication: to disseminate information about QA activities to the healthcare provider audience, clients, and policy-makers. This function assures that the work

carried out by QA teams is communicated to the wide audience of stakeholders for use in policy determination, advocacy for resources, as well as to promote peer learning among health workers about successful QA activities implemented elsewhere.

C. **Rewarding quality work (incentives/recognition):** to ensure that individuals and teams are rewarded for quality efforts and outcomes. These incentives are not necessarily monetary, as effective incentives include the recognition of, and appreciation for, work that is well done. This function supports the ongoing motivation of health workers to practice QA.

II. Structure

The institutionalization of QA requires a clear delineation of roles, responsibilities, and accountability for the implementation of QA activities. The specific organizational structure for implementing QA can vary greatly from one organization to another, and will evolve over time as the QA program matures. Hence, there is no "correct" or "best" structure; and there may or may not be a "QA unit" or fixed organization structure per se. However, institutionalization needs "structures" or mechanisms for oversight and direction, decision-making, provision of support and/or expertise for the QA activities, implementation of QA technical activities, and coordination or linking of QA to other activities in the organization.

III. Internal Enabling Environment

An internal environment conducive to initiating, expanding, and sustaining QA is necessary to institutionalize QA. Such an enabling environment includes the following elements, each important individually, but also supportive of each other.

A. **Policy:** written policies that support quality through clear, explicit, and communicated directions/directives and provide support, guidance, and reinforcement for QA as an integral part of the organization.

B. **Leadership:** leaders who work directly and openly to improve quality by setting priorities, modeling core values, promoting a learning atmosphere, acting on recommendations, advocating for supportive policies, and allocating resources for QA.

C. **Core Values:** organizational values that emphasize quality care and continuous improvement of services that are articulated, promoted, and practiced.

D. **Resources:** sufficient allocation of human and material resources for conducting, supporting, and maintaining QA activities.

Figure 3 presents a graphic model of these essential elements. The core of the model is **quality care,** the desired outcome, which resides within the triangle representing the three main QA activities: **defining quality (QD), monitoring quality (QM)** and **improving quality (QI).** These technical QA activities will have the most impact and success in achieving quality care when they are implemented in conjunction with the eight essential elements present in the model. QA activities are augmented through three **support functions:** capacity building, communication, and incentives. The circle surrounding QA activities and support functions demonstrates the importance of **structure** as an essential element for framing effective implementation of QA. Finally, over-arching and influencing every element is the **internal enabling environment:** policy, leadership, core values, and resources. The sections that follow describe each of the essential elements in more detail.

Figure 3. Essential Elements for Institutionalizing Quality Assurance

Policy

Enabling Environment *Enabling Environment*

Structure

QD

Quality Care

Core Values

QI QC

Support Functions

Resources

Leadership

4.2 Support Functions

As the name implies, support functions provide "support" for the staff to undertake and continue to implement technical QA activities. The development of ongoing systems to ensure QA capacity building, communication of QA efforts, and reward for quality work are critical for an organization to move beyond performing QA as isolated activities, to a state of continuously implemented QA, embedded in the organizational work ethic. These three functions are presented here as discrete support functions because of their particular importance to the institutionalization of QA.

4.2.1 Capacity Building

Capacity building refers to the ongoing process of ensuring that staff have the necessary knowledge and skills to carry out QA activities, and that they know when and how to best use these skills. Capacity building is vital for the development of a critical repository of QA technical, managerial, and leadership expertise within the organization. Capacity building encompasses the whole range of activities that increase QA knowledge, skills, and ability: formal QA training, coaching and mentoring on the job, self and peer appraisals, perfor-mance improvement, and supervisory activities.

"Doing QA" is really more than the simple application of technical methods. It often requires behavior change––learning to work differently. Traditional approaches to capacity-building through one-time classroom training will not be sufficient; innovative, alternative modes of learning are useful, including participatory, adult-learning with mentored on-the-job prac-tice, as well as distance learning.

All three of the following types of capacity-building should be interlinked; they are part of a continuum of support provided to staff as they undertake QA activities.

- **Basic QA expertise:** Institutionalization of QA requires that health providers receive initial and continuing knowledge and skill development in QA techniques and methods. As appropriate, the ability to manage QA activities would also be included. Developing basic QA expertise that should ultimately be integrated into the system includes both pre-service and in-service training. Training activities can take place on-site or off-site, in the context of the job or distance-based. Staff needs will most certainly evolve over time, and thus, training should be tailored to the QA responsibilities and related needs of the staff at any given time. QAP experience has shown that it is most effective to train staff and providers at the time of direct need for information, when they can immediately use it.

- **Coaching and mentoring:** Coaching and mentoring provide ongoing technical and qualitative support to facilitate the behavior changes needed to undertake and sustain QA activities, while simultaneously encouraging the development of a "culture of quality." The term coach refers to an individual, well-versed in QA techniques and principles, who provides on-the-job technical support to staff implementing QA activities. In contrast, a mentor refers to someone who acts more as a guide or advisor; a mentor does not need to be a QA expert, but can identify when additional intervention or expertise would be useful, and facilitate connection with an appropriate resource person.

- **Supervision:** Staff also need day-to-day support and correction as they undertake QA activities. Supportive supervision requires enhancing the facilitating role of the supervisor, assuring that supervisors have a foundation of QA expertise, as well as teaching supervisors how to observe, give feedback, and assess a situation.

These three areas of capacity-building are not mutually exclusive, and may be carried out by a single individual or by very different groups. However, it is necessary that the capability to carry out these capacity-building activities be developed within a critical mass of individuals in order to sustain QA.

4.2.2 Communication

Communication is a two-way interaction, with information imparted from various parts of the organization to staff within the organization, to the communities being served, and to other stakeholders, including policy makers, and then received back from these sources. Communication allows for the identification of quality gaps, reinforcement of core values, and provision of information for advocacy, benchmarking, and change management. The establishment of formal mechanisms to assure the communication of new standards, policies, and improvement activities increases the likelihood of acceptance and compliance with these provisions. Communication reinforces the notion that QA is everyone's business, that successes should be shared, and that lessons can be learned (and shared) when things do not go as well as planned.

Successful communication support for QA includes:

- **Recording** improvements and changes, illustrated by data to show results that have been achieved, as well as the stories behind these results.

- **Sharing** what has been achieved and how it was done, both with the organization's staff, and the community it serves, as well as with others who might learn from it and become motivated to improve their own services.

■ **Using the results** for advocating policy changes. When activities are well documented with supporting data it is easier to convince decision-makers.

When QA is institutionalized, the organization has been transformed into a learning environment. Yet, without access to information, it is difficult to learn. Hence, communication, the exchange of information, is a most essential support function.

4.2.3 Rewarding Quality Work

In addition to having the capacity to do QA and having information available about what can be achieved, staff members also need to see that their efforts in QA are important to organizational leadership and the community served. Rewarding quality work (or efforts to improve quality) fosters a commitment to quality and motivation to strive for excellence. Providing individual, group, or even organizational rewards reinforces interest in QA endeavors and assures that staff values are aligned with organizational values. Not only should an organization develop incentives (both material and intangible) that bolster workers' motivation to undertake QA activities and ultimately provide quality care, it should also examine what kind of disincentives or barriers to quality currently exist and identify ways to remove them.

Case Example 1. Tver, Russia

A group in Tver, Russia set out to improve the system of care for neonates with respiratory distress syndrome (RDS), which at the time provided care in 37 dispersed centers. One group member, who previously participated on a team to develop a system of care for neonates with RDS in Lviv, Ukraine, thought that a similar system could be adapted for Tver, Russia. A small group from Tver visited Lviv for a week to study the system of care, to understand how and why it was developed, and to discuss the lessons learned throughout its development and implementation. This group then returned to Tver and implemented a similar system of care to replace the previous system. This system contained three levels of care: neonatal resuscitation at the peripheral level, a transportation system, and a neonatal care center.

Communication between the group in Lviv and Tver has been maintained. One year following the implementation of the new RDS system, the group from Tver presented their experience at an international conference in Ukraine. The group from Lviv is also scheduled to visit Tver in September of 2000 to see this RDS firsthand. This experience demonstrates the benefits of sharing information to learn from and contribute to the experiences of others, while working towards a common goal of improved quality of care.

Every organization has implicit, if not explicit, incentives that influence staff behavior. Institutionalization requires developing incentives that can stimulate and reward workers for participating in QA activities, for making improvements, and for ultimately providing quality services.

Incentives can be material, such as in Zambia where some districts rewarded their best staff with bicycles or sewing machines, or non-material, such as public recognition of staff to foster employee self-esteem and encourage their continual efforts. In Costa Rica and Niger the "best" QA teams were selected to attend a conference, thus serving a dual purpose of rewarding staff while also continuing their skill development. Other examples of rewarding quality include featuring the work of the teams through meetings, conferences,

employee of the month publicity, and/or facility-based QA documentary posters. All of these examples publicly acknowledge the individuals selected and recognize the value of quality work.

4.3 Structure

Through the years, QAP has learned that although there are many ways to organize QA, there is no single correct structure for implementing QA. However, clear delineation of roles and responsibilities to implement QA activities, and the provision for technical oversight and accountability are critical to the institutionalization of QA. The structure in which QA is implemented will necessarily vary over time, as the degree of institutionalization and maturity of the QA program increases. The overall status of the delivery system and availability—as well as the capability of health providers—also influence the optimal "structure" for implementing QA. Thus, the "bottom line" for QA structure is the recognition that, although structure is essential, different organizational structures may be useful at various stages of QA implementation in order to achieve the "goal" of institutionalization.

> ### Case Example 2. Malawi
> Malawi's experience demonstrates how a QA program can structurally evolve through time. During the initial stages of developing a QA plan for the country, a QA Task Force was formed to provide oversight and planning functions. Membership included representatives from the Ministry of Health (MOH), the regulatory boards (Medical and Nursing Councils), the teaching institutions (medical schools, nursing schools, and allied health professional schools), professional associations, the Christian Health Association (mission facilities), and private practice. The Medical Council housed and provided support for this task force. Currently, Malawi is developing a strategy for scaling up QA within their health system through the development of a National QA plan that will support the National Health Plan's quality objectives and planned health system governance structure.

While QA can be implemented at the facility, district, regional, or national level, the four aspects of structure described below are important, regardless of the implementation level.

- **Oversight:** Any description of structure must address where the responsibility for oversight of QA activities lies. This oversight includes both leadership support (developing strategic direction, setting priorities, follow-up, monitoring of progress) and technical oversight for QA efforts.

- **Coordination:** The very nature of QA implies that it will be implemented in a variety of settings, circumstances, and levels of an organization. The structure must also define how the different components and levels of a QA program fit together and how they will be coordinated and synchronized. For example, the collection and use of data is essential for QA to be most effective––which means coordination with those in charge of national databases is vital. Likewise, because QA activities run across specific service delivery and administrative programs, coordination with technical experts and with those implementing the activities is critical for effective standards, monitoring, and improvement efforts. And lastly, there must be coordination between the core QA activities (QD, QM, and QD) as well as between the various stakeholders.

- **Roles and responsibilities:** The true structure for QA is manifested in how the roles

and responsibilities for performing QA activities are divided and/or delegated within the organization. Eventually, responsibilities for QA should appear in routine job descriptions for individuals as well as in the scope of work for organizational units.

■ **Accountability:** With maturity of a QA program, every individual becomes accountable for results and responsible for quality. However, in the early stages of QA development, it may be useful to clearly outline the specific duties, lines of reporting, and accountability for results, to ensure that QA activities are duly implemented and there is necessary time allocated for staff participation in QA.

During the initial stage of development, it may be important to have some individuals solely devoted to QA, working within a designated QA "Unit" that focuses on QA training and capacity building. During this stage, a visible organizational location for QA, with explicit leadership support may be useful––to boost awareness of QA and grant recognition of its importance. As QA becomes more integrated into the job descriptions (roles and responsibilities) of staff throughout the organization, the type of oversight required shifts, as does its location. Routine management structures (such as a district management committee) may assume daily oversight of QA activities, and the role of the designated QA Unit may become more focused on the development of standards. In other situations, early QA activities may be coordinated through a more umbrella-like structure as the program is taking shape.

Several lessons about QA structure emerge from QAP country experience:

■ **There is no one "best" structure.** The appropriate structure will depend on the stage of institutionalization of QA, on the structure of the existing health system, and on other external factors, such as broader health reform initiatives. The QA structure will evolve as the capacity for QA develops. In this sense, the function of the QA program will dictate its structure.

■ **Clear and specific roles and responsibilities enhance performance.** Therefore, the structure should define the organizational process of QA, who is going to do what, when, and where.

4.4 The Internal Enabling Environment

An enabling environment includes those organizational features that encourage the growth of a sustainable QA program, and that managers generally can control or change, such as organizational **policies, core values, leadership** style, and the commitment to allocate necessary **resources** (human and material) to support QA activities. There is a fluid and synergistic interaction between an organization's policies, core values, leadership, and resource allocation, and this "enabling environment" is important, regardless of the level and complexity of the organization. Obviously, the internal enabling environment functions in the context of a broader external environment that may or may not be "enabling." However, much can be accomplished within the organization itself, taking into account and capitalizing, when possible, on changes in the broader external environment.

4.4.1 Policies

Policies reflect the organization's governing principles and are evidenced in plans, laws, regulations, or courses of action that shape services, organizational structure, and stan-

dards. Policies, when written, constitute an official document outlining the governing principles by which the organization operates and provides services. Written policies that incorporate a focus on quality and quality assurance reinforce institutionalization of QA, particularly in settings where there is high turnover at the leadership level of the organization.

Policy is an important link to other enabling environmental elements; policy is often set or influenced by leaders, determines the resources allocated for QA activities, and may reinforce core values.

From a QA perspective, enabling policies might be found in a National Health Plan that addresses access, cost, and quality of care for the population being served, or a health sector reform initiative that outlines goals and objectives for ensuring quality of care for the population. However, not all policies are national; policy can also be formulated at a district level or even for an individual facility.

It should be noted that policies can also be unfavorable to or hinder the institutionalization of QA. For example, policy that promotes highly centralized decision-making may limit staff initiative to make quality improvements in the delivery of health services. Or, in another instance, financing policies may be formulated in a way that focuses on cost containment, so that quality is not taken into consideration. Such a policy might make it difficult to introduce or maintain quality, particularly if it is seen to "cost more."

> ### Case Example 3. Chile
> The positive interaction of these four elements of the enabling environment was demonstrated in Chile when the central MOH initiated its QA initiative in 1991 (after a change in government). The central government demonstrated leadership and commitment to quality by developing core values to achieve quality care. These core values were reflected in the national policy set to develop a QA program with the goal of achieving quality in health care. This policy also allocated the requisite resources to drive the QA initiative, thus setting the stage to build quality into their national health system's strategic goals.

4.4.2 Leadership

Every organization has people in charge, some are managers, some leaders, and some effectively perform both roles (recognizing that not all managers are leaders, nor are all leaders managers). There can be designated leaders with mandated authority, and informal leaders who "lead" by virtue of their personal strengths. However, not all of those with mandated leadership are effective "leaders" or are individuals who have vision and can motivate people to follow and build that vision, who can set an example for others to simulate, and promulgate the values and goals of the organization. For the purpose of this discussion, we will focus on the concept of formal leadership.

Leadership is critical to the institutionalization of QA because leaders have the power to establish QA as an organizational goal, model the behaviors necessary to achieve the goal, and allocate (or advocate for) resources to carry out QA activities. Experience has demonstrated that QA programs will not survive if the organizational or health system leaders are not supportive and knowledgeable of QA.

Furthermore, leadership is a critical link to the other elements in the enabling environment, for leaders communicate and support organizational core values, make policies, and

allocate resources—without leadership, there cannot be an enabling environment for QA.

There are many different forms of leadership and no particular style that best supports the institutionalization of QA. In higher level organizations or in more complex inter-organizational collaborations, leadership may come from more than one front. The vision and direction may come from one person or organization (such as a professional organization), while the follow-through and resource allocation may come from another. What is important for institutionalization is that the various roles of the leader are assumed and played out in a coordinated fashion.

4.4.3 Core Values

The organization's core values are important to the success of its quality assurance efforts because they dictate desired staff and provider behavior. For instance, the statements "This organization will provide healthcare for the community with integrity and open-mindedness," or "All citizens of our community have the right to quality healthcare" articulate organizational core values as well as goals for each facility and health provider to

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Key leadership responsibilities for a successful quality assurance initiative:

■ Develop and articulate to the staff a vision for quality care—supported by core values and policies to guide standards development—and then allocate the resources to carry out quality assurance activities.

■ Continually advocate for quality with providers, staff, managers, and members of the community.

■ Create a synergy between quality words and actions. When leaders/managers advocate for QA in words but not in actions, they send a strong message that quality is not a priority.

■ Practice and model the four principles central to QA: focusing on clients, systems and processes, data-based decisions, and teamwork.

■ Use change management strategies in order to reduce resistance to the changes inevitable when making improvements.[1]

■ Provide resources for QA activities.

■ Ensure that all operational managers have a working knowledge of QA approaches and demonstrate a commitment to quality care.

■ Empower staff to make improvements.

■ Ensure staff development to increase QA capacity.

■ Allocate staff time to participate in QA activities or make QA part of everyone's job description.

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1 Sengue, P.M., A. Kleiner, C. Roberts, R. B. Ross, and B. J. Smith. 1994. *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization.* New York: Doubleday.

achieve. To achieve optimal performance, organizational values and those held by the individuals working in the organization should be complementary and aligned to create a synergy for working together towards quality care, i.e., developing a culture of quality in the organization.

Core values do not operate independently within the enabling environment; they are directly connected to leadership, policy, and resources. Leaders often set the tone for organizational core values by modeling behaviors and communicating organizational goals. Policy is one way to establish and communicate that quality is an organizational core value. The allocation of human and material resources to QA activities sends the message that quality is valuable to the organization.

Core values that support QA will promote the development of a "learning" environment, where people feel they are doing something that matters––to them personally and to

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Examples of core values that QAP experience has shown to be critical for institutionalizing QA:

■ **Teamwork:** Quality is not the product of a sole individual, but a product of working together and valuing one's own work, as well as the work of others.

■ **Trust and respect:** One of Deming's[2] principles was to "drive fear from the workplace." Trust and respect are critical for open and honest communication. This involves a commitment to openness, listening to each other, and valuing other's opinions.

■ **Timely access to information:** Poor decisions are often the result of a lack of access to information. Sharing information within an organization provides people with the knowledge that they need to make informed decisions about their work and the belief that information should be shared is important.

■ **Avoid blame:** Concentrate instead on ways to correct problems so people can do their work more efficiently. The problem is often in the system and not with a specific individual.

■ **Support learning and risk taking:** Staff are encouraged to take risks in improving their work environment. This involves trusting staff to know how their job fits into the organizational values and empowering them to act and respond as needed.

■ **Involving the clients in improvement:** A focus on the clients means open dialogue with them about what they need, what the organization is trying to achieve, and what can be done to make improvements.

■ **Openness to change:** If an organization wants to improve quality, it must be willing to change the ways it works, not only in terms of processes, but also management and leadership styles.

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2 Sources: Deming, W. E. 1982. *Quality, Productivity, and Competitive Position.* Cambridge, MA: MIT Center for Advanced Engineering Study. Ryan, Kathleen and Daniel K. Oestreich. 1998. *Driving Fear out of the Workplace: Creating a High-Trust, High-Performance Organization,* 2nd Edition. San Francisco: Jossey-Bass.

others.

In summary, organizational values, when explicitly stated in clear and concrete terms, can motivate change, provide direction, and energize the staff. Values can serve as a set of guiding principles upon which organizational members can build a commitment to a shared vision of quality.

4.4.4 Resources

Human, material, and financial resources are obviously a critical element in the enabling environment for institutionalizing QA. Because many health systems already have limited resources available for their programmatic needs, they may find it difficult to identify and justify resources for QA activities. The question arises, "Within the limits of the resources available, how can resources be maximized to achieve quality care?"

Leaders and managers might be reminded that some literature suggests that increases in efficiency and effectiveness as a result of quality improvement initiatives may actually reduce costs.[11] The allocation of resources for QA is important, regardless of the level of organization being discussed.

> **Ways that leaders can support QA efforts through the allocation of human and material resources:**
>
> ■ Allow staff the time to participate in QA activities (such as training or special projects), as well as making QA part of their daily routine.
>
> ■ Ensure that the materials needed for the QA activities are available. These might be as simple as paper and pencils or encompass larger needs such as computers, books, and transportation.
>
> ■ Train enough people to create a critical mass of human resources to support QA efforts.

5. Country examples

This next section will include QA experiences from four different countries, Niger, Zambia, Ecuador, and Chile, specifically highlighting the role and contribution of the essential elements in the process of institutionalizing QA. The purpose of examining each essential element within the context of specific countries, using actual experiences, is to give life to the framework and make the concept of institutionalizing QA less abstract. It also provides an opportunity to scrutinize the utility and appropriateness of the elements and the framework themselves. The countries illustrated are well on their way to institutionalizing QA, but each one faces particular challenges in their evolving effort to attain and sustain quality care.

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11 Atkinson, P.E. 1990. *Creating Culture Change: The Key to Successful Total Quality Management.* Toronto: Pfeiffer & Company.

5.1 Niger

The story of the institutionalization of QA in Tahoua, Niger stands out as an excellent example of how QA activities can greatly impact the quality of care, even in the face of severe resource constraints. Despite many obstacles, this region in Niger was able to launch a QA program with so much success that it is now being replicated on the national and international levels. Tahoua's story also demonstrates how a successful regional initiative can stimulate national attention and ultimately broker broader support for QA.

5.1.1 Background

Niger is one of the least developed countries in the world, according to the United Nations social development index, with social, economic, and health indicators are lower than averages for Sub-Saharan Africa: the infant mortality rate is 123 per 1,000 live births; Niger's child mortality rate is the highest in the world, and has not improved during the past 30 years; and approximately one third of children under the age of five suffer from malnutrition. Furthermore, the annual population growth rate is 3.3 percent as each woman of childbearing age has an average of 7.3 children.[12]

Niger's public health system consists of three levels: central, regional, and peripheral, with a very small private sector. Tahoua, an enormous region that encompasses 1.8 million people (20 percent of Niger's total population), was selected for a regional QA initiative because it is one of the poorest regions in Niger. The Tahoua regional health system is structured in such a way that the Tahoua Regional Health Unit oversees the regional hospital and the eight districts of Tahoua. District health management team responsibilities are twofold. They oversee both the delivery of a "minimum package" of activities in 63 health centers at the peripheral level, as well as the delivery of the "complementary package" of activities by the seven district hospitals.

QA development in Niger can be described in three phases:

■ Phase 1. QA began in 1993 with the Regional Health Unit. The QAP collaborated with the Region to analyze Tahoua's health system and set regional priorities. QA awareness seminars were then conducted at the regional and district levels, acknowledging that QA activities could be used to address priority areas such as improving health worker performance, increasing patient satisfaction, and achieving a higher utilization and coverage rate for essential services.

■ Phase 2. Training in QA skills and tools in 1994 provided the impetus to form a multi-level team addressing the frequent shortage of butane bottles needed to maintain the cold-chain, which is required for the adequate refrigeration of vaccines. This initial exercise in quality improvement was selected not only because it was an important problem to be addressed, but also because it was feasible to demonstrate results within four months, thereby creating much enthusiasm for, and commitment to, QA. After this first experience, the health centers with the largest population coverage were selected to initiate quality improvement activities with the assistance of trained coaches. The coaching system was eventually scaled up to support QA activities in all eight districts, and by 1998 every health worker had received QA training.

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12 United Nations Development Programmes, 1998.

■ Phase 3. QA teams had been formed at every level in Tahoua with one regional Quality Health Council, eight district teams, and 63 health center teams. Teamwork and QA soon became a way of working in Tahoua, so that when QAP ended its part of the project in 1998, quality remained a focal point of the health system in Tahoua as teams are still asked by supervisors to show results from QA activities. Dr. Amsagana Maina Boukar, QAP's Associate Director for Western and Francophone Africa, commented that QA is not a project anymore, but rather is an integral part of what is expected out of everyday work in the regional health system.

A number of obstacles to QA exist in Tahoua. There is poor access to rural health centers because over 70 percent of the population live more than five kilometers from any health-care facility. Equipment is outdated and must be replaced. Monetary issues also created difficulties, as salaries were extremely low and irregularly paid. The way of working was contrary to QA principles—work was not done in teams, little consideration was given to working in systems, clients were often blamed for problems, and decisions were not based on data. Additionally, there was little opportunity for health staff to meet to share ideas, experiences, and frustrations. The following story demonstrates how many QA activities addressed many of these challenges and ultimately institutionalized QA in Tahoua.

5.1.2 QA Activities

QA activities in Niger have been built around the QAP conceptual framework and encompass, to different degrees, the three aspects of QA: defining quality, assessing quality, and improving quality. Although some work has been done in the first two areas, **improving quality** has been an emphasis of activities in Tahoua, Niger. As mentioned previously, teams were created in Tahoua at every level with the regional quality health council, eight district teams, and 63 health center teams. These teams, with the support of a coach, completed approximately 90 quality improvement cycles to address a range of both management and clinical topics. The teams identified the health problem to address; developed, tested, and implemented solutions; and finally, monitored the results. Quality improvement efforts included a variety topics, such as the acceptance of family planning methods, malaria treatment, and the supervision system.[13] Selected results from teams

> ### Case Example 4. Quality Improvement Results: Birni/ Konni Medical Center, Tahoua
>
> In 1993 this district health team identified the incorrect treatment of malaria as a major problem because only 33 percent of the malaria cases were treated correctly. The team developed a variety of solutions to improve this situation, such as conducting an in-service training, posting a job aide, improving patient flow, and systematizing how vital signs are taken. The correct treatment of malaria cases increased from 33 percent to 56 percent during the implementation of the solutions at the beginning of the malaria season in 1994. By the end of the season, correct treatment had increased to 70 percent. Reevaluation during the 1995 malaria season showed that 83 percent of cases were treated correctly.
>
> *(Nicholas, et al. The Effectiveness of CQI in Health Care. 252–61).*

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13 Nicholas, D., L. Winter, X. Crespin, and A. M. Boukar. 1997. Results of CQI in Africa: The Niger experience. In *The Effectiveness of CQI in Health Care: Stories from a Global Perspective.* ASQC Health Care Series. Milwaukee: ASQC Quality Press Publications. 239-250.

include an increase in the coverage of measles immunizations from 18 percent to 83 percent, a reduction in patient waiting time from 3.5 hours to 45 minutes, a decrease in the drop-out rate for the treatment for tuberculosis from 40 percent to 15 percent, and, in three months, an increase from two percent to five percent in the acceptance of family planning methods.

Although these regional teams focused on quality improvement proved to be an important component of QA in Tahoua, QA activities were not limited to improvement endeavors. Substantial work was also completed in **defining quality** care. Managerial standards were developed and communicated through the Standard Operating Procedures manual by developing and communicating standards for management and clinical practices. The project also provided assistance in the communication of clinical standards for the Integrated Management of Childhood Illnesses (IMCI), which had been adopted at the national level by the Ministry of Health. QA activities also addressed **measuring quality** through two patient satisfaction surveys, and three health worker performance surveys, to determine compliance with IMCI standards. Selected results of the health worker performance surveys conducted in May of 1997 and October of 1997 indicated that drastic changes occurred in this short time period, such as: the number of health workers that correctly checked the nutritional status of a child increased from seven percent to 92 percent, vaccination status increased from 41 percent to 79 percent, and correct counseling on feeding practices of children increased from 36 percent to 84 percent.

5.1.3 Strengths in the Internal Enabling Environment

The success of the QA program is partially attributed to the enabling environment that nurtured QA activities in the province of Tahoua. The Tahoua experience demonstrated a strong interaction between the essential elements in the enabling environment, particularly in the areas of core values, leadership, and policy. One of the first regional activities of the Quality Health Council was to create a shared vision and write a mission statement for the region based on an analysis of the regional health system. This exercise provided a focus for the future, a **core value** that everyone was committed to and could strive to achieve. These core values, difficult to capture through quantitative indicators, have been noticed by QAP staff and outside projects when visiting the Tahoua region. Improved morale and motivation among the health personnel, not seen elsewhere, was attributed to a change in behavior induced by teamwork and a focus on quality. Health workers were not only more motivated to do quality work, but they also communicated that they were more satisfied with their jobs. This example illustrates how the development of core values that are supportive of teamwork and a shared vision of quality can bring about differences in the way that people work.

The regional **leadership** in Tahoua was critical in the institutionalization of QA supported by the Regional Health Director and the eight District Medical Officers. These leaders not only supported but modeled QA, sending a consistent message to health center workers that QA activities were valued and recognized in Tahoua. This leadership was well-received by the district level because it provided a management system that previously did not exist. Leadership within the Regional Health Unit entrusted district teams to make their own decisions. This not only allowed district teams to make decisions according to their specific needs, but also allowed for the development of new leaders within the districts. This critical mass of QA leadership proved to be important when two regional leaders were promoted

to the national level. Because there were other leaders with QA experience, other regional leaders were able to assume these positions without disrupting regional QA work. Finally, QAP was successful in providing technical leadership in QA while also fostering a learning environment, in which teams felt ownership of their QA experiences and were free to try different options.

The allocation of human **resources** by regional and district leaders greatly contributed to the success of QA in Tahoua. Leaders were generous in allocating staff the time to participate on QA teams, carry out QA activities, and attend QA training and meetings. It is estimated that the monetary cost of maintaining QA activities such as training new staff, supervision, coaching, technical assistance, and quarterly meetings is five cents each year per inhabitant of Tahoua, approximately $40,000. Although resource constraints in Tahoua limit this possibility, the World Health Organization has funded these QA activities to maintain the QA program since QAP ended its support in 1998.

Policy affected the resources available to the health system in 1997 with the establishment of a cost-recovery system by the National Ministry of Health. This new system required that every user of the health system pay a minimal fee without exemption. Although the policy creating this system was external to the Tahoua region, it impacted the enabling environment for QA activities in Tahoua. While rates for the utilization of services had previously been increasing with the work of the quality improvement efforts, the implementation of this new cost-recovery system resulted in a decrease in the utilization of services and coverage regardless of the quality of care. The new system also impacted the work of health centers, as many workers were concentrating on the implementation of the new system. QAP helped the Tahoua region to inform the public about the new system and disseminate information to help stabilize the health system; in 1998, however, the utilization and coverage rates began to increase again. This experience demonstrates how different elements in the enabling environment are synergistic and affect each other on a regular basis.

5.1.4. Strengths in the QA Structure

The coordination and oversight of QA activities throughout eight districts and 63 health centers necessitated a clear **structure** for the QA program. At the regional level there was a regional Quality Health Council that consisted of the Regional Director of Health, two District Health Officers, two Regional Health Supervisors, and the Resident Advisor. Eight district-level teams below the Quality Health Council were led by District Medical Officers. Finally, each of the 63 health centers had QA teams that generally included one or two nurses, a janitor, and a traditional birth attendant. The Quality Health council provided **oversight** for QA activities in planning and directing Quarterly Management Meetings, promoting the integration of vertical health programs, developing strategies for continuing the education of personnel, and creating incentives for innovative efforts directed at improving client satisfaction. The council has played a strategic leadership role by overseeing these activities and assuring the integration of the QA program into the region's primary healthcare system.[14] District-level teams provided oversight for health center teams through supervision and coaching.

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14 Nicholas, et al. *The Effectiveness of CQI in Health Care.* 252-261.

QA activities were coordinated in such a way that the regional health office undertook the development of a Standard Operating Procedures manual, clinical training, and the communication system. District teams were responsible for the coaching of quality improvement teams, supervision, surveying performance, and patient satisfaction. Health center teams then carried out quality improvement activities. **Roles and responsibilities for QA** were specified by the regional Quality Health Council through job descriptions for staff at all levels. This structure for the QA program still remains in Tahoua and supports the continuation of QA activities.

5.1.5 Strengths in the Support Functions

Support functions helped to sustain the intensity of these QA activities in Tahoua. **Capacity building** through QA training, coaching, and supervision proved to be an essential part of the process of institutionalizing QA in Tahoua. **Training** programs in Tahoua were faced with the obstacle of a high turnover in staff, therefore necessitating frequent QA training cycles. By the end of 1998, all health workers in Tahoua had received training in QA, with an emphasis on quality improvement and problem solving. Quality improvement efforts not only empowered staff to change the environment in which they worked, but also built their capacity to collect, analyze, and use data for the purposes of decision-making and communication. **Coaching** provided additional support to QA teams. Twenty-four coaches were selected from staff who had been trained in QA and had also carried out at least one problem-solving cycle. These coaches assisted teams to carry out quality improvement activities. The system for **supervision** was also re-designed in order to provide systematic support to the health center teams. Several changes were implemented in the supervision system. Standards for supervision were defined and described in a Standard Operating Procedures manual, which provided a checklist of specific essential services that should be delivered by the health centers. A team of supervisors was also trained in supervision techniques and methodology to improve their capacity to provide support. Each health center was visited quarterly by supervisors from the district health management team. This supervision system was connected to the quarterly meetings, where district supervision results would be presented.[15] These changes in the supervision system were not implemented simultaneously, but rather responded to needs as they arose.

QA activities provided three major mechanisms for **communication** among health workers that previously did not exist. The first of these mechanisms included quarterly meetings that were held at the district and provincial levels. These meetings gathered health workers together to share ideas, experiences, difficulties, and solutions in regards to QA activities. These meetings not only provided the opportunity to learn about the successes of other health centers and districts, but also created a sense of belonging to a team. Secondly, two conferences were held for the purpose of disseminating information about QA activities in Tahoua. While the first conference attracted a regional and national audience, representatives from other countries attended the second conference to learn from the experiences of Tahoua. Finally, a quarterly newsletter was distributed to disseminate important QA information.

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15 Bouchet, B., A. M. Boucar, L. Winter, S. Djibrina, E. Kelley, H. Abdallah, S. Legros, and K. Mahamane. May 2000. *Using Quality Assurance to Improve the Primary Health Care System in Niger: The Tahoua Success Story.* The Quality Assurance Project, URC-CHS. In draft.

Creative ways to **reward good work** through incentives and recognition also contributed greatly to the motivation and enthusiasm of QA teams. Teams were provided the opportunity to present their work at regular meetings, thus creating a sense of pride in recognizing their achievements. These presentations also resulted in a healthy level of competition between districts to present the best results in improvements in the quality of care. The experience in Tahoua illustrated how these support functions such as capacity-building, communicaion, and rewarding good work provided people with the ability to carry out QA activities as well as giving them the incentive to do so. These activities are still in place in Tahoua.

5.1.6 Summary

Despite considerable obstacles, QA has been institutionalized as a fundamental part of the way the district health system in Tahoua operates. The success of this regional program has largely been due to the emphasis on fostering core values that support QA at all levels of the system and using QA activities to address priority areas according to the organizational vision statement. Although QA activities did to some extent define and measure quality, an emphasis was placed on improving quality through the use of problem solving teams. These teams were greatly supported through a strong system of capacity building, communication, and the non-monetary incentives of presenting their work. The supervision system in Tahoua was successfully re-designed to incorporate QA activities. The institutionalization of QA is an ongoing process, however, and although QA is an important part of Tahoua's health system, opportunities exist to strengthen this program and allow it to continue growing. Future steps to further strengthen this program could include developing and/or updating clinical standards of care, further strengthening the supervision system, and linking an incentive system to performance.

Another way to strengthen the QA program in Tahoua is to institutionalize QA programs on a national scale in Niger. Surrounding Tahoua with other districts that also value QA would only strengthen the human resources available to maintain QA and enrich the experiences and lessons to learn from each other. The central level Ministry of Health is currently trying to replicate the experience in Tahoua on a national level by gradually introducing QA activities into other districts. Eleven districts are currently being targeted for QA activities with the support of a loan from the World Bank, and UNICEF has proposed to support the implementation of QA activities in 12 additional districts. This national effort was initiated when the Minister of Health visited Tahoua for 11 days and was impressed by the way that people work differently in Tahoua. This difference in performance was attributed to Tahoua's commitment to QA, inspiring the Minister to implement these activities on a national scale. To incorporate the valuable knowledge and experience in QA from the Tahoua region, two active supporters of QA in the Tahoua region were promoted to the national MOH as the National Director of Health Services and the Head of Quality Promotion. This experience in Tahoua has influenced national policy, which now explicitly states the goal to focus on the quality of healthcare.

Many lessons were learned from the experience of institutionalizing QA on the regional level in such a resource-constrained environment. These lessons include but are not limited to the following:

■ Commitment from the community and health providers leads to solutions that are more sustainable as improvements and aimed to achieve a greater satisfaction from the service users.

- Dramatic improvements are not always linked to a lack of means, but often to issues regarding service organization and management. Sharing successes and other information meetings helps staff to resolve problems.

- QA can be sustained in Tahoua if training and follow-up are maintained through activities such as supervision, coaching, and quarterly meetings. Regular Regional Quality Council meetings at the regional health directorate level and QA Team meetings at the district and peripheral levels are important for the continuity of QA activities.

- This experience-sharing mechanism has become an indispensable part of the system. Opportunities for discussion about quality improvement generated group dynamics and teamwork that had not existed before.

- Quality improvement work has built the capacity of local healthcare staff to identify and solve problems, particularly in topics such as utilization, coverage, logistics, and administrative issues. The implementation of problem-solving techniques has had a significant impact in improving the staff's ability to collect, analyze, and use data at the healthcare facility and district levels.

- The project succeeded in reviving the QA supervisory system and creating trained supervisory teams to provide technical support to healthcare facility staff. The concept of coaching helped transform the traditional authoritarian style of supervision into a supportive, problem-solving approach.

5.2 Zambia[16, 17]

Zambia's Quality Assurance program offers the example of a national program developed within the context of larger health sector reforms. This experience demonstrates how QA infiltrated Zambia's health system, particularly through strong leadership, capacity building, and communication. Zambia's story of the institutionalization of QA is interesting, as it has confronted many obstacles, such as changes in leadership and a recent structural integration into the Zambian health system.

5.2.1 Background

Zambia, a developing country of nine million people located in southern Africa, is divided into nine provinces and 67 districts. Zambia's[18] infant mortality rate is an estimated 109 deaths per 1,000 births and 197 deaths per 1,000 births for children under the age of five. Maternal mortality is also a national health issue, accounting for an approximated 13 percent of all deaths of women between the ages of 15 and 49. Zambia faces multiple and serious health challenges, with significant resource limitations, widespread poverty, and rising unemployment. Major causes of mortality and morbidity nationwide include

16 Tembo, J. c1997. A strategy for sustainability: The quality experience in Zambia. *Canadian Journal of Quality in Health Care* (14)1. 28-31.

17 Maboshe, M., J. Tembo, A. Rooney. Fall 1999. Development of a hospital accreditation program: the Zambian experience. *QA Brief.* (8)2. 15-17.

18 Central Statistical Office (Zambia) and Ministry of Health and Macro International, Inc. 1997. *Zambia Demographic and Health Survey, 1996.* Calverton, Maryland.

waterborne diseases (such as cholera and dysentery), tuberculosis, and HIV/AIDS. Thus, the Zambian health system has placed maternal and child health, family planning, nutrition, the control of communicable diseases, immunization, and environmental sanitation as national health priorities.

QA efforts began in 1991 as a part of health reform initiated by the Ministry of Health (MOH) with the vision of "providing a cost effective, quality healthcare system as close to the family as possible." To achieve this vision, the MOH aimed to transform the centralized management with a focus on curative care delivery to a decentralized system that emphasized preventive care. The QA Unit, formed in 1993 by the Health Reforms Implementation Team (HRIT), was commissioned with developing a sustainable approach to improving the quality of healthcare in Zambia. The QA Unit began promoting QA by exposing MOH Provincial Medical Officers, the Steering Committee, and district staff to QA concepts and approaches.

In 1996, the HRIT evolved into the Central Board of Health (CBoH), responsible for the implementation of health reforms, including quality assurance activities. Structural adjustments also occurred between the MOH and the CBoH; while the MOH retained responsibility for policy and technical guidance functions, the CBoH was charged with the decentralized management of health services at the district and regional levels. The QA Unit, under the direction of the CBoH, sought to improve the quality of care through setting standards for health services, monitoring indicators of achievement, and solving problems in teams.

The CBoH also created a multidisciplinary advisory group, the Zambia Health Accreditation Council (ZHAC) to oversee the setting of standards and develop an accreditation program nationwide. Currently, ZHAC is working under the direction of CBoH to carry out the process of surveying and accrediting facilities with the goal of prioritizing resource allocation, improving planning, and ultimately, improving the quality of care. A study of ZHACs work will provide valuable information on the impact of organizational standards and accreditation on improvements in healthcare delivery.

5.2.2 Overview of QA Activities in Zambia

The QA Unit began by presenting QA concepts, approaches, and customer service to the MOH. QA's customer focus was well-received in the context of health sector reform, as the MOH was emphasizing community participation and decision-making in health. With encouragement from MOH leaders, the QA unit expanded to training local staff in four districts of different provinces to stimulate interest in expanding QA. District and regional work involved setting standards and developing indicators. The QA unit soon discovered, however, that healthcare workers often did not have enough consistent information for the development of standards and lacked the tracking systems for data collection. Therefore, in 1995 the QA unit began to emphasize quality improvement approaches such as team-based problem solving while also strengthening local level support. This local level support provided on-site assistance in problem solving, standards setting, and monitoring.

The CBoH developed QA activities parallel to district level activities. For instance, the Health Systems Directorate developed clinical standards at the national level. These standards became the foundation for a Health Monitoring Information System (HMIS), which involved the development of indicators and the implementation of facility-based monitoring. Emphasis on district and primary healthcare facilities shifted to hospitals,

supporting accreditation activities that defined minimum performance standards for Zambia's 80 hospitals.

ZHAC, under the CBoH, has developed 49 performance standards and measurable criteria with which hospitals are assessed. This accreditation initiative has assisted many hospital leaders and staff in prioritizing resources for needed improvements, such as infrastructure, supplies and medication, the standardization of processes and written policies and procedures, infection control practices and monitoring, the safety of the facility, and the adequacy and competency of staff.

Case Example 5. Kabompo District Hospital, North Western Province

A Kabompo District Hospital team noted overspending on materials and food, averaging K5,000,000 ($US 4,000) monthly, due to a lack of monitoring of purchases. Therefore, the team established standards for procurement, inventory, and stocking and ultimately reduced their monthly expenditures by 84 percent to K800,000 per month.

Magoye Rural Health Center, Mazabuka District, Southern Province

The Magoye health center team noted that an average of 15 children and eight antenatal patients left the health center unattended every day. The team studied this problem and determined that it was in part because of a lack of clear roles and responsibilities for registering, interviewing, and assessing patients. Therefore, the team developed standards for care and clear job descriptions. This changed the way that maternal and child services were managed, reassigning trained staff to key points in service delivery. This intervention eliminated the problem of unattended patients as well as increased service volume for both antenatal and child services by approximately one-third.

Kabwe Railway Surgery Clinic, Kabwe District, Central Province

The QA team in this clinic noted that the drug supply was consistently depleted half way through the month, leaving the clinic without pharmaceutical supplies for two weeks. The team studied the problem and identified the lack of an inventory system for drugs and the over-prescription of drugs as potential causes of this drug supply problem. The QA team introduced standards for diagnosing and prescribing the drugs while also monitoring the appropriateness of the use of drugs on the Essential Drug List. Drugs that formerly lasted an average of two weeks now lasted the entire month, thereby eliminating patients being turned away due to a lack of drugs.

5.2.3 Strengths in the Enabling Environment

Quality assurance in Zambia evolved out of the broader push for health reforms and was personally advocated by the Minister of Health. Thus, the Minister of Health provided strong **leadership** for QA with the support of an influential physician who led the QA efforts under the HRIT. This reform context in Zambia also provided an environment with a leadership style that favored the delegation of responsibility to lower levels, thereby developing leadership and **core values** supportive of QA at the provincial and district levels. QA activities fit into the organizational core values with health sector reform, emphasizing participative management and community involvement. QA with its "customer focus" greatly contributed to a change in the attitude of staff towards clients.

This strong leadership support for QA was reflected in the vision of health reform, a policy statement that explicitly stated the goal of achieving a "quality healthcare system." This policy statement provided support for national QA activities from the beginning, as demonstrated through successes in standards development and the accreditation program. Since health was a priority in Parliament, the politicians wanted health staff to be exposed to QA concepts and activities, and thus supported the expansion of QA into districts and provinces. National QA policy formation is currently being coordinated between the CBoH and the MOH Planning Directorate to formally document the "working policy" for QA that has evolved over the years.

Just as strong leadership had served as the cornerstone for initiating the QA plan and structure in Zambia, a change in leadership combined with a change in available resources has forced Zambia to re-evaluate priorities that have affected their QA efforts. The new leadership was not able to support teamwork meetings, which limits the ability to carry out QA activities.

5.2.4 Strengths in Structure

The original organizational structure for QA in Zambia covered all levels, from the CBoH to facilities. A QA Unit was established to provide administrative and technical leadership for the adoption of QA methods. This QA unit consisted of leaders from public and private sectors, the university, and medical and nursing associations. **Oversight** for the QA unit came from national level CBoH directors and donor committees, while District health boards and management teams provided oversight for QA at the district level. Finally, hospital boards provided oversight for QA in hospitals.
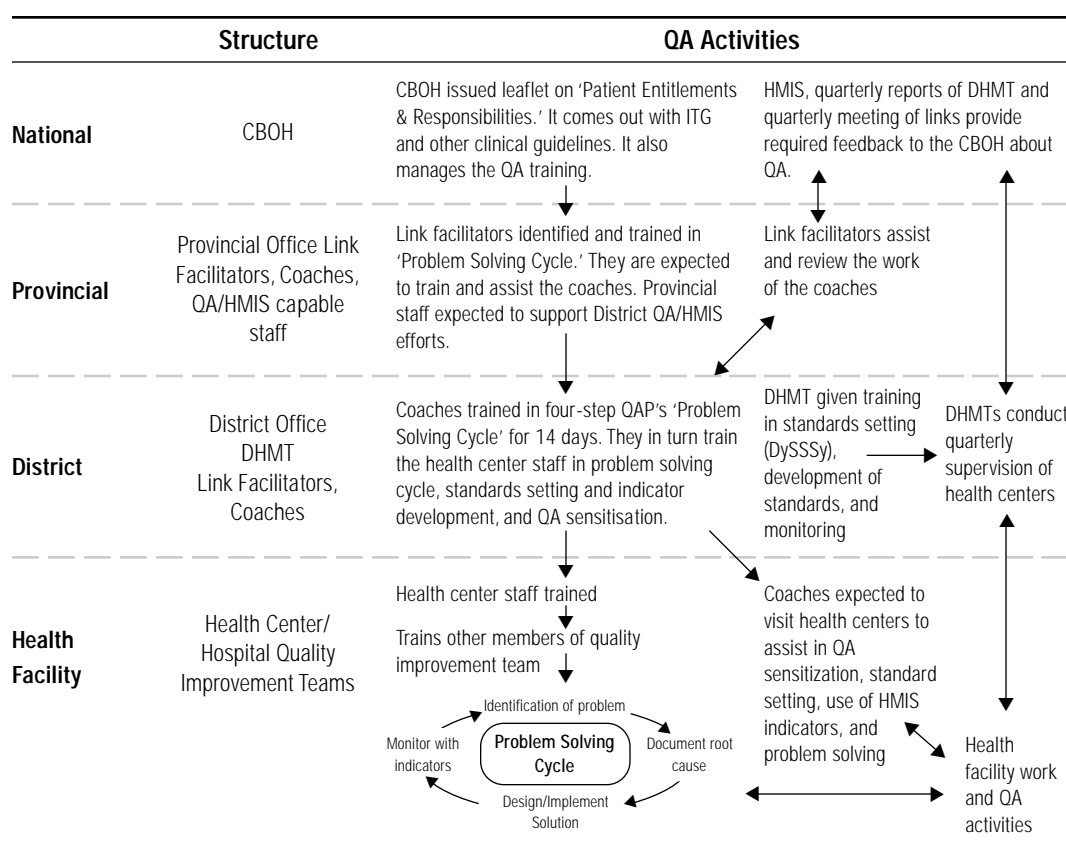
The QA Unit **coordinated** activities at districts and regional hospitals, while districts coordinated facility level activities. Coaches also played an important role in coordinating QA activities at the district level by conducting training and providing support to assess and improve quality. Linkage facilitators were selected to coordinate between the district, provincial, and national levels. These facilitators supported facility coaches while also reporting to the QA Unit needs identified for district level capacity-building. This coordination provided a mechanism for feedback and communication between the district and national levels. This QA structure specified **roles and responsibilities** for QA through job descriptions for coaches, link facilitators, and district level staff. Roles and responsibilities were also specified for district management teams, which were responsible for measuring and improving the quality of care and developing standards suited for local application.

The CBoH structure was recently revised to integrate QA into the CBoH structure. This change eliminated the separate structure for the "QA Unit," and instead created four directorates: Diagnostic and Clinical Services (D&C), Technical Support (TS), Health Services Planning, and Public Health Research. QA is housed within the D&C and TS directorates; clinical QA activities in the D&C directorate are linked with Technical Support to provinces in service management. At the provincial level, all technical staff is required to be familiar with both QA and HMIS activities.

5.2.5 Strengths of Support Functions

Capacity-building has been a real strength in Zambia's approach to institutionalizing QA. Every district in Zambia was saturated with QA. Representatives from various primary care centers and hospitals in all nine provinces received QA Awareness courses and capacity-

Figure 4: Overview of Initial Structure for QA Activities in Zambia[19]

	Structure	QA Activities	
National	CBOH	CBOH issued leaflet on 'Patient Entitlements & Responsibilities.' It comes out with ITG and other clinical guidelines. It also manages the QA training.	HMIS, quarterly reports of DHMT and quarterly meeting of links provide required feedback to the CBOH about QA.
Provincial	Provincial Office Link Facilitators, Coaches, QA/HMIS capable staff	Link facilitators identified and trained in 'Problem Solving Cycle.' They are expected to train and assist the coaches. Provincial staff expected to support District QA/HMIS efforts.	Link facilitators assist and review the work of the coaches
District	District Office DHMT Link Facilitators, Coaches	Coaches trained in four-step QAP's 'Problem Solving Cycle' for 14 days. They in turn train the health center staff in problem solving cycle, standards setting and indicator development, and QA sensitisation.	DHMT given training in standards setting (DySSSy), development of standards, and monitoring → DHMTs conduct quarterly supervision of health centers
Health Facility	Health Center/ Hospital Quality Improvement Teams	Health center staff trained → Trains other members of quality improvement team → Problem Solving Cycle (Identification of problem, Document root cause, Design/Implement Solution, Monitor with indicators)	Coaches expected to visit health centers to assist in QA sensitization, standard setting, use of HMIS indicators, and problem solving ↔ Health facility work and QA activities

building in QA skills, such as the Dynamic Standard Setting System (DySSSy) (the standards setting and indicator development method) and quality improvement. Over 155 coaches provided assistance to district and facility level teams. In turn, these coaches received support from over 35 linkage facilitators in the nine provinces. In 1998 and 1999, capacity-building began to focus on hospitals, responding to accreditation activities and demand from hospital staff.

As mentioned previously, this capacity-building system provided a natural system of **communication** between the district and national levels. Linkage facilitators provided information to the national level about successes and needs at the local levels while also providing support from the national level. Quarterly linkage meetings provided an opportunity to present facility level experiences to the national leaders and donors. These linkage meetings served as an incentive, because participants were funded to travel to a central location for the meetings and received a copy of any documentation of their experience. These quarterly meetings were discontinued, however, due to a change in leadership. Although these meetings were a valuable opportunity to exchange ideas and successes, they were not sustainable because of Zambia's scarce resources.

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19 DySSSy: Dynamic Standard Setting System developed in the United Kingdom; CBoH: Central Board of Health; HMIS: Health Management Information System; DHMT: District Health Management Team; ITG: Integrated Technical Guidelines.

Good work in QA was rewarded in Zambia. Many of those who showed good aptitude for QA have since advanced to positions of authority within the system, NGOs, and academia. Their knowledge of teamwork and problem solving set those who worked in QA aside from their peers. As these people advanced and were developed as leaders, they in turn supported QA through further capacity building.

5.2.6 Summary

Zambia's experience is unique in demonstrating how QA began as a part of larger health sector reforms, expanded in its structure, and then was eventually integrated into the existing structure of the health system. This integration makes it difficult to describe the current structure of QA activities, occurring as a routine part of provincial and district management and within several CBoH directorates. Ultimately, institutionalization aims to integrate QA into a health system where people "do the right thing, right, right away." If QA is integrated prematurely, however, it can contribute to an inconsistent application of QA technical interventions because not everyone has received capacity-building in QA. This is not to say that QA activities are thriving throughout Zambia. In general, staff within the health system are conscious that quality improvements are possible even with limited resources and must be made, whether through using techniques they have learned as part of QA training or through regular management interventions.

The integration of QA into the health system makes it difficult to determine what QA activities are currently being carried out and what future steps for the institutionalization of QA would be. Some lessons learned, however, can be extrapolated from the Zambian experience in institutionalizing QA and applied towards future endeavors:

■ Communication was predicated on frequent contact between linkage facilitators and coaches and quarterly meetings. When resource constraints and new CBoH policy prevented these meetings from taking place, communication and support for ongoing field work was greatly reduced. This limited central-level ability to understand the development of QA and recent improvements due to QA.

■ Health reform resulted in the reassignment of a large number of clinicians from hospitals to primary healthcare and from well-served to under-served areas. This disruption presented a challenge to the spread of QA skills and knowledge, as coaches and link facilitators were often moved.

■ A lack of follow up to facilities and of QA-trained staff was frequently stated as a reason for QA failing to be implemented at district and facility levels. The limited national level staffing constrained in-depth work at the institutional level.

■ Attention to national level policy to guide QA work came late in the program for Zambia. It is only now, after seven years of work in QA, that a national policy addressing QA is being drafted. This policy is hoped to guide the complex relationships between the various parties who are involved in QA design, training, and implementation.

■ Zambians feel that one element they require for further institutionalization of QA is access to state-of-the-art information about QA practices. An ongoing relationship with international QA professional organizations and African quality experts has provided a broader view of what is possible within the QA realm.

5.3 Ecuador

Ecuador's QA journey is an excellent example of the evolution of QA in the health sector. Beginning as a local grassroots initiative, QA grew to eventually become part of the national policy for health. QA activities were introduced in 1994 to improve the quality of clinical case management of cholera and acute diarrhea in two rural areas. By 1998, support for QA had spread to the extent that the MOH developed healthcare policies fundamental to QA and strengthened its role as regulator of the healthcare system. In 1999, a central QA unit was formed to coordinate QA activities and further develop QA policy. However, recent political change has affected the institutionalization of QA, making the next steps in the evolution of QA less certain.

5.3.1 Background

Ecuador is a country divided into 22 provinces, with a total population of 12.5 million inhabitants. The major causes of infant mortality in Ecuador are perinatal respiratory conditions, premature birth, pneumonia, and acute diarrhea.[20] The maternal mortality rate is 159 per 100,000 live births. Access to health care remains a critical issue in Ecuador, as an estimated 25 percent of the population do not have access to any form of health care. Economic conditions present one obstacle to accessing health services, especially for people living in remote areas that cannot afford to miss work to visit a health center. Cultural and linguistic differences also limit access. Although the national language is Spanish, there are a number of indigenous groups that speak other languages, the most common being Quetchua. Many of the indigenous women are not bilingual, thereby constraining access to care for themselves and for their children.

Ecuador's health system is divided among five major entities. The major source of health-care is the MOH, reaching approximately 30 percent of Ecuador's poorest population with 122 hospitals and 1,535 ambulatory facilities. Social Security, however, provides healthcare delivery to approximately 20 percent of the employed population. Private clinics and hospitals serve 15 percent of the population. The other major actors in Ecuador's health system are non-governmental organizations and military facilities.[21] The MOH under the previous government had initiated efforts in health sector reform, such as decentralization, modernization, and increased hospital autonomy. These reforms aimed to increase the efficiency of the MOH's scarce resources and introduce quality as a management method-ology for newly decentralized facilities. Recent government changes, however, have temporarily paralyzed these activities.

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20 Hermida, J. 1999. The road to institutionalizing quality assurance in Ecuador in an environment of health sector reform. *International Journal for Quality in Health Care,* 2(5). 447-50.

CEPAR. 1996. Principal provincial indicators (in Spanish): CEPAR: Quito, Ecuador.

National Institute for Statistics and Census (INEC). 1996. *Annual of Vital Statistics* (in Spanish). Quito, Ecuador: INEC.

21 Hermida, J. 1999. The road to institutionalizing quality assurance in Ecuador in an environment of health sector reform." *International Journal for Quality in Health Care.* 2(5). 447–450.

QA activities in Ecuador have undergone four main stages of development:

■ The first stage began in 1994 with a specific focus on improving clinical case management of cholera and acute diarrhea in two small rural areas on the Pacific coast of Ecuador. The QA program emphasized quality improvement activities and achieved significant results, particularly in compliance with clinical norms and cost reductions attributable to a more rational use of drugs. These successes (discussed in detail below) drew the attention of the national MOH authorities who had been struggling for years to improve performance with very limited resources.

■ In 1996, the Minister of Health created the National Program for Quality Improvement of Health Services (NPQI), hence providing national level support for QA. Through the NPQI, the MOH dedicated resources to develop QA capacity among health professionals through extensive training. During this period the first National Conference on Quality Improvement was held.

■ In 1998, a new government came into power and expanded health reform efforts, focusing on decentralization, the modernization of health services, and access to quality health care. QA activities were considered a management method to assist these reforms, thus creating a vision of integrated quality management at decentralized levels. These changes also strengthened the MOH's position as the regulator of health care in Ecuador. QA activities were concentrated in 19 intermediate level hospitals in three districts. During this time, the Latin America and Caribbean Regional Initiative to Reduce Maternal Mortality (LAMM) also began in one district, Cotopaxi, as a collaborative effort between the MOH, QAP, and two other partners; QA activities (quality redesign) are a significant part of the Initiative.

■ During the most recent stage, a central QA unit was formed within the MOH. This unit was created to coordinate and institutionalize QA nationwide, and currently supports QA activities in five provinces. However, the change in government in January 2000 created a situation of uncertainty in the MOH and has temporarily limited the activities of the QA unit.

5.3.2 QA Activities

As mentioned previously, in 1994 initial QA activities in Ecuador focused on improving the clinical care of acute diarrhea and cholera in two rural coastal areas. QAP collaborated with the national program for the Control of Diarrheal Diseases to define a set of standards for the care of cholera and acute diarrhea, as well as the associated indicators to monitor the quality of this care. Quality improvement teams were formed and identified problems: deficiencies in the clinical assessment of dehydration and dysentery; the overuse of antibiotics, anti-emetics, and antidiarrheals; and a lack of counseling on the use of Oral Rehydration Salts (ORS), feeding of the sick child, and home care of diarrhea.

These problems were addressed through a number of solutions, such as refresher courses on clinical standards for the treatment of acute diarrhea and cholera, counseling techniques, and the use of job aides. A supervision system was also developed to carry out ongoing data collection from observation checklists and interview forms, thus continually measuring the quality of care. Drastic improvements in the clinical care of children with acute diarrhea were observed, especially in compliance with standards for the physical examination of patients. Because of the success of these initial activities, the government

decided to support, expand, and formalize QA activities through the creation of the NPQI. The NPQI provided 15 central level facilitators who assisted in the establishment of, and provided technical assistance to, 21 quality improvement teams working in selected hospitals and health districts.

Until 1998, QA activities emphasized quality improvement. However, at that time the teams became frustrated with the limited impact of isolated quality improvement activities, which did not address the design of the overall system. They noted that as soon as one problem was improved, another problem would emerge, and described their efforts as trying to "stop water running out of a barrel with a thousand holes," or as "taking steps forward without knowing where the road leads."[22] This general sentiment led to the introduction of quality design as a means to redesign existing systems and processes of care. Quality design is a systematic approach to service (re)design in which the needs, expectations, and desires of clients and the community are determined and design options are chosen that satisfy those needs with the resources available.

Case Example 6. LAMM: Salcedo, Cotopaxi: Ecuador

A quality design team was formed in the Yerovi Mackuart hospital in Salcedo, Cotopaxi in May 1998 to address Essential Obstetrical Care (EOC). The team began its work by researching the needs of external clients and using this information to develop designs to improve reception and triage in the hospital. A few of the changes instituted by this design include reorganizing personnel so that someone is on duty 24 hours a day, placing signs outside and inside the hospital to guide patients, and making the waiting rooms more comfortable for patients. The director of this hospital, Dr. José Izurieta, is an enthusiastic leader and supporter of efforts to improve the quality of care provided by the hospital. Along with the changes instituted by the design team, Dr. Izurieta contracted four specialists for the Salcedo hospital. Preliminary monitoring results of the work of Salcedo hospital indicate a 44 percent increase in the number of deliveries and a 118 percent increase in the number of surgeries performed.

With the initiation of LAMM activities in the province of Cotopaxi in 1998, quality redesign was formally begun. LAMM aims to decrease maternal mortality through increased demand for services (primarily among indigenous women) and improvements in the quality of essential and emergency obstetric care (EOC) at the facility level. To meet this objective, priority services are being redesigned to better meet the needs of both internal and external clients. A monitoring system has been established to measure the quality of these services through selected quality indicators; this monitoring system is designed for sustainability as it relies on data that is routinely collected and analyzed.

5.3.3 Strengths in the Internal Enabling Environment

In 1998, the government supported QA through **policy** change in Ecuador's constitution, explicitly stating that the quality of healthcare was a national priority. This policy shaped the **core values** of the health system. MOH **leadership** was fundamental in allocating

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22 Hermida, J. 1999. The road to institutionalizing quality assurance in Ecuador in an environment of health sector reform. *International Journal for Quality in Health Care.* 2(5). 447-450.

human resources to carry out QA activities at the central, provincial, and local levels. In addition, MOH leaders supported QA as a means of strengthening health sector reform activities, such as decentralization and the modernization of facilities. QA became a national initiative because of dedicated leadership that supported policy and approved resources.

Nonetheless, the Ecuadorian program has been affected by frequent changes in the national government. Initially these changes did not appear to greatly influence the majority of QA work carried out at grassroots levels. However, in 1998 the new government integrated QA into the MOH structure at all levels. Although this was a great advancement for the institutionalization of QA at the time, it also meant that QA activities were more vulnerable to changes in government. In fact, the most recent elections in January 2000 brought extensive leadership changes at almost every level of the MOH (with the exception of many hospital directors). Fortunately, new Provincial Directors are supportive of QA and favor the continuation of activities at the local level. Central level involvement in QA is currently being determined.

5.3.4 Strengths in the Structure

In 1998, the government of Ecuador considered ways to institutionalize QA at the national level. Up to this point, the NPQI had been the primary central level QA program, but existed as a separate structure, not integrated within the MOH. In order to incorporate QA activities into the routine work of MOH facilities at every level, the functions of the NPQI were integrated into the regular organizational structure of the MOH at central, provincial, and local levels.

At the central level, the QA unit is operated under the Director of the Division of Health Services. This central level QA unit is made up of two members from the MOH, as well as representatives from the Pan American Health Organization (PAHO) and QAP. The central level QA team has three main **roles:**

■ **Develop** policy to support the institutionalization of QA

■ **Coordinate** QA activities throughout the country

■ **Support** and **oversee** the QA activities of the five provincial teams

The Provincial Health Director and Technical Sub-director oversee QA activities at the provincial level. As of 1999, approximately 20 percent of Ecuador's provincial level Directors were coordinating the QA activities of local level teams. These QA teams, with the support of local facilitators, are concentrating on the modernization of hospitals and the redesign of services in 53 priority facilities.[23] One strength of the QA structure at the local level has been the incorporation of QA activities into the responsibilities of local staff. Facility staff are allotted time to work on the QA teams, while QA facilitators each have one day a week to support QA teams.

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23 Hermida, J. 1999. The road to institutionalizing quality assurance in Ecuador in an environment of health sector reform. *International Journal for Quality in Health Care.* 2(5). 447-450.

5.3.5 Strengths in the Support Functions

Among the support functions, **capacity-building** has always been a strong component in Ecuador's QA program. In 1996, the NPQI was created to train and develop QA facilitators to support the expansion of QA activities in Ecuador. In turn, these facilitators coached quality improvement teams in MOH facilities. In two years, the NPQI facilitators trained 438 health professionals and coached 21 teams. Thus, the initial training activities resulted in a strong foundation of QA knowledge in Ecuador.

The program was designed to provide on-site training for busy health professionals who could not leave their work. To this end, the NPQI authored a QA training manual using "real life" situations in Ecuador.[24] This innovative training approach is being adapted by LAMM to communicate standards for essential and emergency obstetric care through "problem-case learning."

In addition to training, coaching is another important component of capacity building in Ecuador's QA program; QA facilitators are allotted one day weekly to coach QA team activities.

5.3.6 Summary

Ecuador is an important example of how the results from successful quality improvement teams working in a limited area can stimulate the development of a national QA effort. Over the course of about six years, QA has expanded from discrete quality improvement activities to improve the care of patients with diarrhea in two rural areas to a national program, incorporated into the MOH at the central, provincial (five provinces), and local levels. Nonetheless, although QA has been incorporated at the central level, frequent political changes may jeopardize the further expansion of this program. Therefore, it is important to reinforce the capacity of and support for QA at the provincial and facility levels, while simultaneously demonstrating to the new government that QA is a worthwhile national initiative.

To date, the QA program has strongly emphasized capacity-building. As a result, a "critical mass" for QA exists at every level of the health system in Ecuador. Two areas that remain largely unexplored, however, include communication and rewarding good work. The LAMM project is currently constructing a "benchmarking" system between quality design teams to create a mechanism for sharing information and ideas, thereby expanding the support base for QA activities. Rewarding good work has not been emphasized in the QA program; activities in this area could present an opportunity to further strengthen the QA program in Ecuador.

Important lessons have been learned from Ecuador's experience in the institutionalization of QA:

■ Frequent changes in the government necessitate a QA program structure that remains stable, despite such transitions. The QA program in Ecuador is currently reinforcing and building QA capacity at the provincial and facility levels to assure continuity.

■ A QA program can improve the quality of care in the context of government efforts to carry out health sector reforms, such as modernization, decentralization, and financing.

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24 Hermida, J. 1999. The road to institutionalizing quality assurance in Ecuador in an environment of health sector reform. *International Journal for Quality in Health Care.* 2(5). 447-450.

- A QA program can be scaled up from isolated problem-solving teams to provincial and central level programs. However, it is important to gain political support at each of these levels in order to effectively implement QA activities.

- Carrying out QA activities in teams creates a culture that values "doing the right thing, right away." Teamwork is a powerful tool in changing both organizational cultures and individual behavior.

5.4 Chile[25]

Chile's Quality Assurance program offers an example of a mature program, national in scope, and implemented at both the level of health service management and at the central Ministry of Health. Chile has focused on capacity-building throughout the public health system, institutionalizing QA in 80 percent of 29 health service areas (HSAs) through local QA plans and programs, and in the MOH with the permanent establishment of the Quality and Regulation Unit, all funded internally.

5.4.1 Background

Chile is a geographically and climatically diverse country of 14.6 million inhabitants. It is divided into 13 regions, 51 provinces, and 341 districts. Despite the low income of a significant proportion of the population, health indicators approach those of developed countries (IMR––11.1; MMR––2.5; and life expectancy––75.2 years).

The Chilean health system consists of four sub-sectors: public, private, Armed Forces, and nongovernmental healthcare. All are regulated by the Ministry of Health, which is responsible for setting technical norms and quality standards, as well as monitoring their implementation. The public health system, which serves approximately 60 percent of the population, is highly decentralized. It is segmented into 29 HSAs. Each HSA has direct responsibility for operating public hospitals in its area and providing technical oversight to primary healthcare facilities run by municipal governments.

Quality Assurance began as a national program in Chile, but with decentralized implementation. There was an unstated acceptance that QA activities would be voluntary and respect local autonomy. Chile's QA program developed over four phases:

- 1991–1993: Creation of the National Program for the Evaluation and Improvement of Quality (EMC) within the central MOH, charged with establishing national policy for quality and initiating, through training and support, quality improvement activities in the regions and health service areas (funded by USAID through QAP)

- 1993–1995: With the end of outside funding, the MOH committed to funding salaries and travel costs of EMC staff, as well as the cost of training materials. Other costs were

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25 Sources used for preparing this section include: Gnecco Tassara, G. 1999. Making a commitment to quality: development of the quality assurance programme in Chile, 1991–1999. *International Journal for Quality in Health Care.* (11)5. 443-445. Gnecco G., S. Lucero, A. Bassi, R. Loncomilla, L. DiPrete Brown. 1998. *Making a Commitment to Quality: Development of the Quality Assurance Programme in Chile, 1991–1998.* Quality Assurance Project. Legros S., R. Massoud, O. Urroz, E. Kelley. 2000. *Chilean Quality Assurance Program: "People Working With People for the People:" The Chilean Legacies in Health Care Quality.* Quality Assurance Project. In draft.

to be borne by the health service areas. More responsibility for the program was decentralized to HSA Quality Committees for QA planning, training, and coaching.

■ 1995–1997: Continued decentralization and permanent incorporation of QA functions into the structure of the MOH through the creation of the Quality and Norms Unit in the Division of Health Programs.

■ 1997–present: In the context of other health reforms, expansion of responsibilities at the central level to include development of a regulatory role for the MOH (change of name to the Quality and Regulation Unit).

Because of the various changes in title of the central unit in charge of QA, it will simply be referred to as the QA Unit in the following section.

5.4.2 Quality Assurance Activities

The mainstay of Chile's QA program has been the focus on quality improvement activities as a means to achieving the desired quality outcomes for primary healthcare. Through stimulation of small, targeted projects based on local priorities, 625 process improvement teams with 98 Quality Committees were formed, and more than 630 quality improvement activities were completed by 1999.

In addition to quality improvement, some efforts at quality monitoring have also been implemented. A diagnostic module for patient satisfaction surveys has been developed and implemented, as a measure of quality as well as for the identification of quality gaps. Key indicators of quality have been defined nationally, monitored, and used locally.

With the third and fourth phases of the Chilean QA program, the QA Unit began to collaborate with health program and unit directors in the MOH to select and define healthcare criteria, standards, and indicators. Ten volumes of regulatory standards have been compiled and published for national health priorities. The QA Unit has also established national normative groups to develop technical and administrative guidelines. For any new standards developed, or old ones updated, indicators and monitoring tools are also developed.

5.4.3 Strengths in the Internal Enabling Environment

Chile began its National QA program in 1991 in support of a national agenda to improve the quality of public sector health services. This agenda emanated from the Government of President Patricio Aylwin, the first democratically elected president in 17 years, and focused on the principles of equity, social efficiency, social participation, respect for the dignity of individuals, and solidarity. Quality assurance efforts were linked to the Inter-Ministerial Committee on Public Management Modernization. This kind of **policy** environment was conducive to the development of core values focused on respect of local authority, professionalism, and teamwork. In addition, the variety of standards, norms, and regulations emanating from the QA Unit since 1998 have served as concrete guidelines for quality care.

An important element in the context of Chile's enabling environment has been the consistent **leadership** provided by the National QA Director, who has championed QA since 1991. She has modeled **core values** of professionalism, integrity, transparency, dedication, accountability, and teamwork. Leadership has also emerged from many of the Regional and HSA QA Committees. More than 80 percent of QA Committees have

developed strategic plans, and a majority of hospitals and primary healthcare centers have mission and vision statements, as well as strategic objectives.

Another critical element in the enabling environment is **resources**––financial and human. In Chile, all QA activities are currently funded by the central MOH, the Regions, or the HSAs. In general, the central MOH funds the central QA Unit (salaries, transportation, and training materials), while the regions and HSAs fund staff time and training. Furthermore, as a result of health sector reform taking place, the MOH now prepares management agreements with the Regions, which in turn prepare contracts for services with their HSAs. Quality of care or management commitment to quality is now incorporated within these management and service contracts.

5.4.4 Strengths in Structure

The structure of QA in Chile has evolved over time, but has maintained the duality of central level technical support with local level management of QA efforts. Oversight of QA efforts was initially provided by the QA Unit, but now over 80 percent of the HSAs have established QA Committees that guide local QA efforts. In general, the specific roles and responsibilities for QA are well established at the central level, even if they change over time as QA efforts evolve. In some regions, job descriptions for QA Coordinators have been developed, but within the HSAs and health facilities, the Quality Committees are the base structure through which local responsibilities are assigned to, and human resources allocated for, implementing QA. Formation of these committees was voluntary, but they have played a critical role in coordinating and planning quality improvement activities, as well as disseminating information about QA activities and related results.

5.4.5 Strengths in Support Functions

Capacity Building: From the outset, the central QA Unit identified its key roles as the motivation and training of health professionals in QA methods, and the provision of technical assistance to the HSAs and districts for the development of QA plans and implementation of quality improvement teams. Throughout the evolution of Chile's QA program, the central level has maintained this commitment to training (both financially and technically). However, because of the decentralized nature of the Chilean health system, the QA Unit quickly recognized the need to build capacity at the regional and HSA level by training local quality monitors. The quality monitors would then be responsible for local level QA training and coaching. To date, Chile has trained approximately 800 quality monitors and about 10,600 health professionals in QA methods. Roughly 38 percent of the QA training has been done by local quality monitors. A QA Resource Center, housed in the QA Unit, makes QA materials available to quality monitors and teams around the country. In two regions, study groups have been formed to read and discuss information about QA experiences and methods. Finally, as a result of the QA Unit's collaboration with universities, QA is now to be included in the professional curricula for nurses.

Communication: The importance of communication in QA was envisioned from the beginning of the Chilean QA effort; hence, one of the QA Unit's four original objectives was "to oversee and ensure that communication of quality is carried out." Several mechanisms were developed to assure the documentation, sharing, and use of QA results. Each year, one month is dedicated to "Quality in Healthcare," during which a variety of special events bring healthcare professionals together to share and promote quality initiatives, including a three-day National QA conference. The QA program has also frequently shared its experi-

ences internationally, through participation in the Congress of the International Society for Quality Assurance, and through hosting study tours from other Latin American countries. In the early years, the QA Unit published a bi-monthly publication to keep health professionals apprised of training activities, formation of QA committees, and activities of the central QA Unit. This information is now included in the routine health bulletins published by the Regions.

Rewarding Good Work: Several mechanisms for recognizing and rewarding good work have been developed in the Chilean QA system (not just by the QA Unit). They are outlined below.

■ National Prize for Quality in Public Services, which recognizes those systems with quality programming

■ Day of Excellence in Health, where honors are granted for outstanding performance in the field of Public Health

■ Maria Salgado Award, which is awarded to a quality monitor who has been nominated and selected at the annual national conference

■ Bonus program (still in development) which allows a bonus to be built into performance-based contracts

■ Local recognition of individuals and work teams

5.4.6 Summary

The following strategies have contributed to the institutionalization of QA in Chile: 1) the creation of a central level team with a strong command of QA methods, 2) a decentralized implementation strategy that motivated health personnel to work on their priorities, 3) the development of QA training and reference materials tailored to the Chilean context, 4) the training of quality monitors throughout the country to support local capacity building and implementation efforts, and 5) collaboration with Chilean professional associations and universities (which led to the inclusion of QA into professional curricula).

The fact that QA has been incorporated into the permanent structure of the MOH, and that quality aspects have been included in the MOH management with local Health Services, are important achievements in the road to institutionalizing QA. Chile is a good example of a strong national level QA effort, coupled with decentralized implementation.

Future directions for furthering institutionalization in Chile might include:

■ In the evaluation of QA activities to date, a major recommendation has been to focus quality improvement efforts on clinical problems according to national health priorities.

■ Strengthen the national oversight function for QA, perhaps through the formation of a national Quality Council, which would increase participation from the 29 health service areas and improve coordination at the national level in order to better support decentralized QA efforts.

■ Upgrade the QA Unit's position to facilitate its ability to direct a national quality strategy and advocate for increases in the current resource allocation (human and financial) to sustain QA. This increase in resources would take into account the specific needs of the health service areas.

■ Expand the range of professional curricula including QA methods.

6. Conclusion

These diverse examples from QAP experience demonstrate how the integration of the essential elements and support functions is critical to building and institutionalizing Quality Assurance in health systems, and ultimately to achieving improved quality of care. Although each of these countries differ in the level at which QA was institutionalized and how QA activities were applied, each illustrates how the essential elements contribute to the creation of an organizational culture in which quality is valued and worked towards. Leadership in Chile demonstrated a commitment to QA by developing policy and allocating resources to ensure quality care within the national health system; these factors in the enabling environment allowed for the extensive capacity-building of Chilean health professionals and the many efforts to reward their work. Capacity building was also emphasized in the Ecuadorian program, creating a critical mass at the national, provincial, and facility levels to continue QA activities despite the many changes in leadership and policy throughout the past five years. In Niger, district leaders were able to overcome severe resource constraints and build a strong system of supervision and communication to support the work of quality improvement teams, creating a sense of pride in their work and results. QA in Zambia also overcame severe resource constraints through supportive leaders that encouraged participative management and used QA as a way to address national health priorities.

Institutionalization of QA can occur at different levels. For example, QA was institutionalized at the provincial level in Tahoua, Niger, and due to the large success of the program, it is now being scaled-up nationally. In Chile and Zambia, however, QA was launched as a national initiative with central level QA units. QA work at the grassroots level in Ecuador demonstrated such impressive results that a central level committee was formed and QA began as a national effort. These examples not only demonstrate the various levels at which QA can be institutionalized, but also the variety of structures that a QA program may have. These structures often evolve over time, further illustrating that there is not a one and only way to structure QA. Rather, the structure is built to weather the various challenges it could encounter (such as the frequent political changes in Ecuador or severe resource constraints in Niger) and to optimize advantageous situations, such as health sector reforms in Zambia.

These illustrative examples of how QA has been institutionalized in countries as diverse as Niger, Zambia, Ecuador, and Chile demonstrate the wide application of QA activities and the various ways that the "essential elements" of the institutionalization of the QA model play a critical role. The common thread among these examples is that each reflects the powerful impact that QA and its essential elements can have in creating an organizational culture in which quality is not just a set of activities, but a way that work is done.